

ESTABLISHING A LEAD AND COPPER SITE SAMPLING PLAN FOR NONTRANSIENT NONCOMMUNITY PUBLIC WATER SYSTEMS

INTRODUCTION

The Lead and Copper Rule was published on June 7, 1991. This rule puts the responsibility of providing water that is non-corrosive to lead and copper upon the water retailer. To document compliance with the Lead and Copper Rule, each community water system and each nontransient noncommunity (NTNC) water system must implement an intensive monitoring program.

Because of lead's adverse effects on the human body and because it is currently difficult to identify a clear threshold below which there are no risks of adverse health effects, the U.S. Environmental Protection Agency (EPA) has established a maximum contamination level goal (MCLG) of zero. A maximum contamination level (MCL) has not been established. What will be used is an "action level", the level at which some type of treatment is required. These action levels are;

Lead = .015 mg/1 (15 ppb) in more than 10% of monitored taps.

Copper = 1.3 mg/1 (1,300 ppb) in more than 10% of monitored taps.

THE FIRST STEP

Each system must complete a materials evaluation of its distribution system. This evaluation should be initiated immediately to determine the type of materials used in the distribution system and to identify sampling sites.

Samples taken must be 1 liter of tap water collected from sites where people drink water in your facility. This may include water fountains, kitchen and break room faucets, etc. They are taken as first draw samples that have set in the plumbing for a minimum of 6 hours at high-risk locations. Facilities open 24 hours a day are exempt from the 6-hour holding period.

High-risk locations include sites that:

- Contain lead solder installed after 1982;
- Have lead pipes; and/or
- Have exterior lead service lines.

WHERE SAMPLES MUST BE TAKEN

Each NTNC water system shall attempt to fill its sampling pool with tier 1 sampling sites.

1. **Tier 1 sampling sites** consist of structures that:

- Contain copper pipes with lead solder installed after 1982 or contain lead pipes
- Are served by a lead service line.

2. **Tier 3 sampling sites** consist of structures that contain copper pipes with lead solder installed before 1983.

Any NTNC water system with insufficient tier 1 sampling sites shall complete its sampling pool with tier 3 sampling sites.

3. **Exceptional cases** consist of NTNC water systems that can document a lack of tier 1 or tier 3 sampling sites and are classified as Category F1 and Category F2. NTNC systems may use exceptional case categories only if tier 1 or tier 3 sites are not available.

Category F1 sites are located in buildings with:

- Plastic pipes and brass fixtures
- Copper pipes with flare fittings and brass fixtures
- Galvanized pipes with brass fixtures
- Copper pipes with lead free solder and brass fixtures

Category F2 sites are located in buildings with:

- A water softener

NOTE: Sampling sites should not include faucets that have point-of-use, or point-of-entry treatment devices designed to remove inorganic contaminants. If a site has a water softener connected to the cold-water kitchen tap or bathroom sink tap, it should not be included in the sampling pool unless no other sites are available.

HOW MANY SAMPLES

All NTNC systems in Missouri are required to take five 5 samples during each 6-month monitoring period. If both are completed without exceeding action levels, monitoring will be reduced to 5 samples per year for the next 3 years. After that your system may be eligible to reduce sampling to once every 3 years.

Each NTNC water system that does not complete its targeted sampling pool with tier 1 sampling sites shall send a letter justifying its selection of tier 3 or exceptional case category sampling sites to:

**Lead and Copper Rule Manager
Missouri Department of Natural Resources
Public Drinking Water Branch
P.O. Box 176
Jefferson City, MO 65102**

Phone: 573-751-1406 Fax: 573-751-3110